Program.cs

using DoctorApp.Models;

namespace DoctorApp

{

internal class Program

{

static void Main(string[] args)

{

Hospital ABCHospital = new();

ABCHospital.SignUpDoctors(2);

ABCHospital.ShowAllDoctors();

Console.Write("\nEnter Speciality: ");

string speciality = Console.ReadLine();

ABCHospital.GetDoctorsBySpeciality(speciality);

}

}

}

Hospital.cs

using Microsoft.VisualBasic;

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace DoctorApp.Models

{

internal class Hospital

{

Doctor[] doctors = [];

public Hospital() {

}

internal void SignUpDoctors(int v)

{

doctors = new Doctor[v];

for (int i = 0; i < doctors.Length; i++)

{

doctors[i] = new Doctor(100 + i);

Console.WriteLine("Please enter the doctor's name: ");

doctors[i].Name = Console.ReadLine();

Console.WriteLine("Please enter the Qualification: ");

doctors[i].Qualification = Console.ReadLine();

Console.WriteLine("Enter Speciality");

doctors[i].Speciality = Console.ReadLine();

Console.WriteLine("Please enter the Year of Experience");

int yearofEx;

while (!int.TryParse(Console.ReadLine(), out yearofEx))

{

Console.WriteLine("Invalid entry. Please try again.");

}

doctors[i].Experience = yearofEx;

}

}

internal void ShowDoctor(int idx) {

Console.WriteLine("\n\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

Console.WriteLine($"\nName: {doctors[idx].Name}");

Console.WriteLine($"Qualification: ${doctors[idx].Qualification}");

Console.WriteLine($"Specification: ${doctors[idx].Speciality}");

Console.WriteLine($"Years of Experience: ${doctors[idx].Experience}");

Console.WriteLine("\n\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

}

internal void ShowAllDoctors() {

for(int i = 0; i < doctors.Length; i++)

{

ShowDoctor(i);

}

}

internal void GetDoctorsBySpeciality(string speciality) {

for (int i = 0; i < doctors.Length; i++) {

if (doctors[i].Speciality == speciality)

{

ShowDoctor(i);

}

}

}

}

}

Doctor.cs

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

//) Create a Doctor class with details

//Id, Name, Age, Exp, Qualification, Speciality

//2) Create an array of doctors

//3) Print the array

//4) Given a speciality print the doctor details in it

namespace DoctorApp.Models

{

internal class Doctor

{

public int Id { get; set; }

public string Name { get; set; }

public int Experience { get; set; }

public string Qualification { get; set; }

public string Speciality { get; set; }

public Doctor(int id) {

Id = id;

}

/// <summary>

/// Creates a Doctor

/// </summary>

/// <param name="name">Name of the Doctor</param>

/// <param name="experience">Experience of Doctors in years</param>

/// <param name="qualification">Qualification of The doctor</param>

/// <param name="speciality">Speciality</param>

public Doctor(int id, string name, int experience, string qualification, string speciality) : this(id)

{

Name = name;

Experience = experience;

Qualification = qualification;

Speciality = speciality;

}

}

}

Output



